

## Sewer district funding projects

"All in all, we're pretty excited to have \$42 million to spend on green infrastructure projects around Cleveland," said Kellie Rotunno, the sewer district's director of engineering and construction. But, Rotunno added, "It's going to take a lot of little green pieces, and fitting them all together, to get the results that we need."

Kyle Dreyfuss-Wells, the district's manager of watershed programs, and engineer Denis Zaharija have been working for months to find those pieces. A list ranking the 38 projects on merit will be turned over to state and federal officials by December for a review of the overall plan.

For the district, it's all about hydrology, Dreyfuss-Wells said. That and the court requirement to reduce discharges of untreated waste by 44 million gallons in the next eight years using green projects. For the program, the idea is to marry the district's interest with those of communities.

"It's all about taking advantage of what folks are already doing," Dreyfuss-Wells said. "It's not all about combined sewer overflow volume or the court, but a lot of it is about the communities and some of the intangible benefits to them."

Those benefits include that projects are above ground, visible and aesthetically pleasing, and can improve air quality and property value, according to Marc Camaratta, head of the Philadelphia Water Department's watershed office.

"There's even studies linking it to crime reduction," Camaratta added. Philadelphia has embarked on what appears to be the nation's most aggressive green infrastructure program to manage its combined sewer overflows, which currently stand at about 13.5 billion gallons a year.

Philadelphia plans to reduce those discharges by 7 billion gallons in the next 25 years with \$2.4 billion in improvements — about 70 percent of them green infrastructure projects.

"I think the key here is we have a huge opportunity to give something back to the ratepayers," Camaratta added.

## District named one of 10 EPA partners nationwide

The Northeast Ohio Regional Sewer District has been tapped by the U.S. Environmental Protection Agency as one of 10 partners nationwide to help lead the way in developing green storm-water management solutions. It represents the EPA's Great Lakes Region.

"All the cities are doing something with green infrastructure, but not all the same thing," said Bob Newport, an EPA official in Chicago. "They are trying new things that are ... breaking new ground."

Newport said the sewer district's idea of linking storm-water management with neighborhood revitalization was a new concept.

He applauded the district's approach of working with community leaders to try to enhance, rather than replace, local efforts that are already under way.

"It's quite a lot of work to put this in place," Newport added. "You have to make sure the community really wants this."

"But I think they realize there's a big payoff in getting this double benefit of soaking in the storm water and also providing an amenity for the community, helping stabilize some of these neighborhoods." Like Cleveland, more than 700



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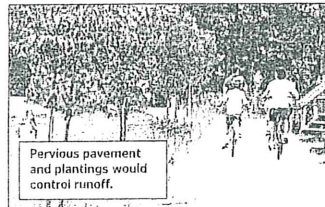
Paved roads, crumbling and clogged with illegally dumped debris, crisscross a 23-acre site in Kinsman, part of Cleveland's Urban Agriculture Innovation Zone. Work is beginning on farms that are expected to produce jobs and fresh produce for inner-city residents.

## Sewer district's \$42 million 'green' plan

The Northeast Ohio Regional Sewer District is under federal court order to develop a "green" infrastructure program to reduce its discharge of untreated waste by 44 million gallons in the next eight years. Thirty-eight projects throughout Cleveland are being considered.

**The goal:** Reduce storm water flooding and provide amenities to the neighborhoods. Not all of the projects will receive funding and their components might change, officials said.

## Two approaches to the problem



Pervious pavement and plantings would control runoff.

NORTHEAST REGIONAL SEWER DISTRICT PHOTO

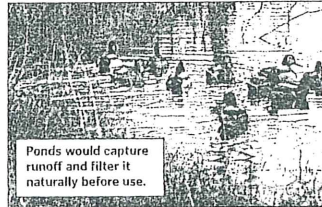
## Lake Shore Boulevard area of Collinwood

Annual discharges of untreated wastewater: 10 million gallons into Lake Erie

Estimated annual reduction from proposed green infrastructure project: 1.5 million gallons

**Plan:** Improve sewers by piggybacking on construction work Cleveland has scheduled; create green streetscapes on Lake Shore Boulevard and several adjoining side streets; install storm water capture areas, green parking lots and grassy areas to lessen runoff into Green Creek.

SOURCE: Northeast Ohio Regional Sewer District



Ponds would capture runoff and filter it naturally before use.

PLAIN DEALER FILE PHOTO

## Urban Agriculture Innovation Zone in Kinsman

Annual discharges of untreated wastewater: 64.5 million gallons into the Cuyahoga River

Estimated annual reduction from proposed green infrastructure project: 2.1 million gallons

**Plan:** Tear out four acres of paved roads that were closed to create the Urban Agriculture Innovation Zone; build a system that will include ponds to divert and capture and clean storm water, which then could be used to irrigate crops.

DAVE DAVIS AND KEN MARSHALL / THE PLAIN DEALER

land project that boasts state-of-the-art storm-water management — bio-retention ponds, sand beds for water infiltration and an 1,800-gallon cistern.

A look down Lake Shore shows acres of parking lots, now barely used, that surround apartment complexes and businesses. Each acre of hard surface sends roughly a million gallons of water a year toward local sewers.

"We don't need to design our parking lots for the 100-year shopping event," Rotunno said, underscoring why the area is such a problem for storm-water runoff.

Sewer officials are considering piggybacking on the recreation center and sewer work slated to be done on Lake Shore by Cleveland to break up the hard surfaces and create green streetscapes, long stretches of trees, plants and other landscape features that allow water to drain directly to the soil. It's a lift that Cleveland Councilman Michael Polensek says will help turn the area around.

Driving on Cedar Avenue near East 105th Street, engineer Zaharija points out large stretches of land without homes. "It will be rebuilt," he said, "so we have an opportunity to work with Cleveland if

we want to make this a green street."

And on 23 acres off Kinsman Road, part of the Urban Agriculture Innovation Zone, sewer district officials are clearly excited as they talk about the chance to help themselves and the Kinsman neighborhood. The site is now home to a fish farm and greenhouse, and work is beginning on the farms that eventually are expected to produce jobs and food for inner-city residents.

But roughly four acres of paved roads, once the arteries of a residential neighborhood that no longer exists, crisscross the property, serving only to produce millions of gallons of storm-water runoff and give people access to illegally dump tires and building debris.

"With the district's help, this could be taken to the next level," Rotunno said. "I'd love to come in here and peel back this pavement."

Zaharija talked of capturing and cleaning storm water for crop irrigation. Right now city water is used.

"We're excited about the partnership," said Timothy Tramble, executive director of the non-

profit Burten, Bell, Carr Development Inc., which is overseeing the development of the site.

"We're going to eliminate every food desert in Cleveland with a mobile market," Tramble said. "If you can't get to fresh food, it's going to get to you."

Urban planner Terry Schwarz said Cleveland has an opportunity to reshape itself as the population declines and vacant land becomes available. Schwarz heads Kent State University's Cleveland Urban Design Collaborative, which is assisting the Urban Agriculture Innovation Zone.

"It needs a lot of water," she said. "The sewer district is looking for a place to put water."

"I think there are lots of places around the city where green infrastructure could be transformational. But for now, these combined overflow projects have to happen in some key places where they're needed."

"That's one limitation," Schwarz said. "But, hey, who can complain about \$42 million in green projects around the city."

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# Sewer district putting green (\$42M) on green projects

DAVE DAVIS

Plain Dealer Reporter 10-3-11

In a program that environmental officials say could set an example for the nation, the Northeast Ohio Regional Sewer District plans to spend \$42 million in the next few years on neighborhood "green" projects aimed at reducing flooding and the discharge of untreated waste.

For 38 areas being considered for the program, which is being funded by ratepayers as a part of the district's \$3 billion in court-ordered system improvements, it probably will reduce local flooding and add a variety of new amenities.

They'll see the peeling back of concrete and asphalt to create ponds and parklike green spaces, the demolition of abandoned homes in favor of community gardens, the installation of green streetscapes, and hundreds of thousands of dollars in improvements.

All told, sewer district officials want to transform 1,000 acres of unused, highly impervious urban landscape — parking lots, roadways and abandoned buildings — into green spaces designed to capture and clean storm water naturally, keeping most of it out of the sewer system altogether.

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